# Science Council of BC
# Service Plan
# 2002 – 2005

*Science Council of British Columbia*

*Turning Ideas Into Solutions*

103-03834/



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# 1. Organizational Overview

*The Science Council of British Columbia is a Crown agency created under the Science Council Act. In existence since 1978, it is mandated by the Act to carry out a broad range of duties pertaining to science, research, and technology. The Science Council's activities are focused on science and its importance to British Columbia for economic development and enhanced quality of life. The Science Council's core services are the delivery of initiatives related to research and student support, the analysis and assessment of S&T-related initiatives, and the development of public awareness of S&T opportunities. Increasing emphasis is on awareness and communications of S&T opportunities and the provision of analysis and advice to government on science matters.*

The Science Council Act provides the Science Council with a potentially broad mandate. By focusing on roles and responsibilities that are relevant to the public, consistent with fiscal constraint, and suitable for government involvement (as determined by the goals of the core services review and decisions regarding subsidies to business), the Science Council has identified three priorities for its Service Plan:

- Delivering initiatives for research and student support that involves the funding of research, facilitating technology transfer, and delivering scholarships and other skills development initiatives.

- Analysis and assessment of science, research and technology matters that involves facilitating, conducting, and synthesizing strategic analyses, assessments and reports on science, research and technology matters and the development of advice to government.

- Development of public and corporate awareness of scientific and technological opportunities that involves building public support for science, research, technology and innovation.

The emphasis for the Science Council's activities is increasingly on matters related to science in British Columbia. While the distinctions between science and technology may often be blurred and the two are closely related - with useful technology often the outcome of scientific endeavour - the Science Council's focus will be on science matters. This recognizes the emergence of other complementary organizations and structures, such as the Premier's Technology Council and the Technology Industries Association, with their focus on technology matters. While Science and Technology are within the legislated mandate of the Science Council, and both terms are used in this service plan, the emphasis for the Council's services will be science.

The Science Council has a 15-member volunteer board appointed by the government. It is managed by a President/Chief Executive Officer selected by the board. The province through the Ministry of Competition, Science and Enterprise funds the Science Council's core operations and activities. However, the Science Council may also undertake activities that are funded under contract with other public and private organizations.

## 2. Vision

*The Science Council of BC will be the province's preeminent organization on scientific and technological matters to promote economic development.*

S&T are the driving forces of economic growth in successful knowledge economies. S&T-based economic growth depends on a broad range of factors. Key factors include the generation of knowledge or research development, technology transfer, a highly skilled workforce, an innovation culture, and public awareness of S&T opportunities.

The Science Council has a unique structure, directly linked through legislation to the ministry responsible for S&T. The structure enables the Science Council to be creative, entrepreneurial, responsive and innovative. As a Crown agency, the Science Council is perceived externally to be neither government, academia, nor business/ industry. This unique positioning enables the Science Council to be particularly effective in the roles of public and corporate awareness and communications of S&T opportunities and in undertaking analysis and providing advice on science-related matters.

The Science Council is envisioned as an important organization that is able to address key science, research, and technology matters. The Science Council's unique positioning and history of successful activity with the science and technology community create a solid basis for credible and effective efforts related to S&T public and corporate awareness and communications. The Science Council's connections with British Columbia's science and technology community, and the prestige of its Board are important factors contributing towards the quality and influence of the advice that it provides on S&T matters.

The Science Council is able to draw upon a strong base of supporters, and it works in a collaborative and complementary manner with other organizations. It has established a record of success and goodwill with the S&T community that gives it the credibility to undertake the core services. It has recognized competencies and a proven record of efficiently executed and effective work.

The Science Council can build on its unique position, structure and competencies to become preeminent in areas of public and corporate awareness and communications of S&T opportunities and recognized by government as a valued and influential source of analysis and advice on science-related matters.

## 3. Mission

*The Science Council's mission is to promote economic development – which in turn enhances the quality of life for our residents – across BC, through innovative applications of S&T.*

This mission statement is based on the details of the Science Council Act. The Science Council will undertake activities consistent with its legislated mandate and government direction. The legislation specifies the following duties:

- Encourage development and application of advanced technology to meet the needs of industry in BC including the implementation, administration and funding of programs, and the organization and management of projects and initiatives that further the objectives set out in this section
- Consider all matters brought to its attention by the minister and if required report its findings to the minister
- Formulate recommendations to the government respecting the acquisition, development and dissemination of scientific, technological and scholarly knowledge to promote the industrial, economic and social development of BC
- Advise the government on implementation of science policy
- Gather and organize information on scientific research
- Facilitate discussions on science policy with Canada, a province or with an interested person
- Recommend to the government the establishment and awarding of fellowships, scholarships, exhibitions, bursaries, grants and prizes to encourage development of improved technology and retention of skilled research personnel in BC
- Evaluate R&D proposals and make recommendations to the government respecting funding of these proposals.

## 4. Values

*The values that guide the Science Council's organizational behaviour are accountability, effectiveness, flexibility, credibility and creativity. The Science Council's staff and volunteers are recognized as the key source of the organization's strength.*

The Science Council's source of strength as an organization is derived from its staff and volunteers. Their commitment to the Science Council's mission and their expertise are critical. In undertaking its activities, the Science Council's values serve to guide the organization's behaviour.

The Science Council is committed to being accountable to the province's residents and making the best use of public funds. It anticipates and responds to issues related to S&T that affect the province and seeks innovative approaches to better serve the public interest. The Science Council is committed to fulfilling the elements of its responsibilities to BC that are both defined in the Science Council legislation and supported by government.

In applying these values, the Science Council recognizes the role that it can play in helping other S&T organizations succeed in achieving their goals. The Science Council has a long tradition of initiating and coordinating collaboration with a wide variety of organizations. The Science Council staff are involved in a number of external boards and committees; Science Council supports a variety of initiatives to increase interest and awareness of S&T; and the Science Council encourages activities undertaken by others that can contribute to its objectives.

## 5. Planning Context

*The global competitiveness of BC depends increasingly on knowledge, technology and our capacity for innovation. The roles of science, research technology, the provincial government, and the Science Council are evolving in response to fiscal and competitive considerations.*

***External Economic and Business Environment***

Strategic issues faced by the Science Council include:

- Move to innovation-driven and knowledge-based economies

Many jurisdictions have moved to embrace innovation and create knowledge economies. The shift from capital and resources – that were the basis of growth in the past century – to knowledge and innovation, places an increasing premium on advances in scientific knowledge and a highly qualified workforce. Despite the recent economic downturn, a succession of technological developments is believed to be the source of sustained long-term economic growth. The need for public understanding of these matters and the need for sound analysis and advice to government on addressing these challenges are significant.

- Positioning of the province for global competition

As global competition is increasingly driven by innovation, the province is required to have the ability to compete with other jurisdictions as a place of choice for knowledge workers, investors and entrepreneurs. There is a need to increase leverage from BC's emerging high-technology sector and position the province to compete in the global market. Public understanding, support and action are required to reposition the province for global competition. Science and technology developments are significant drivers and determinants of global competitiveness – both from the perspective of developing and commercializing leading edge products and processes in the high-technology sector, and in applying innovation in resource industries to increase efficiency and productivity.

- Increasing R&D, and S&T graduates in BC

In R&D, BC is lower than the national average in terms of expenditures as percent of Gross Domestic Product and personnel per 100,000. The province also ranks last among six comparative jurisdictions in the number of science and engineering bachelor degrees per 100,000 population. Overall, BC is in a catch-up mode in key factors that determine success in knowledge economies.

- Recognition of technology in new provincial government's agenda

The new provincial government strives to use technology for economic growth and to make BC's technology industry the fastest growing in Canada. S&T have been addressed with the creation of the Ministry of Competition, Science and Enterprise whose science mission is to encourage a culture of innovation, and to develop and transfer new knowledge that benefits individuals, businesses and communities. The government has also created the Premier's Technology Council to inform

and advise the Premier on technology-related issues. Performance in meeting S&T goals as well as other areas will be measured against benchmarks set by the BC Progress Board.

While the distinctions between science and technology are often blurred the two are closely related. The emergence of complementary organizations and structures with a focus on technology, such as the Premier's Technology Council and the Technology Industries Association, enables the Science Council to refocus its efforts onto science-related matters. While both science and technology matters are within the legislated mandate of the Science Council, the emphasis for the Science Council's services will be science-related. Increasingly jurisdictions are recognizing that effective economic development strategies include both a technology application strategy and a closely related science strategy.

- Business Subsidies Review

The provincial government has stopped subsidies to business. Provincial technology support programs such as the Technology BC Program previously delivered by the Science Council and other initiatives such as the Technology Assistance Program, First Job in Science Program etc. have been terminated because they provide an unfair subsidy to particular firms.

- Science-based public policy decisions

The provincial government has recognized the need for decisions to be based on sound science to address development issues in major sectors such as forestry, marine industries, mining and oil, agriculture and biotechnology. Science is important in developing regulations and driving innovation that is environmentally and economically sustainable.

- Efficient use of scientific resources and efforts

Because of the pervasive nature of S&T across many government departments, there is a need to ensure maximum synergy in government's S&T activities and expenditures. Several jurisdictions have established various mechanisms to integrate S&T as a component of economic strategy, promote rational decision making and resource allocation, and improve coordination and collaboration to minimize duplication and improve efficiency.

- Federal-provincial partnership in S&T

Partnership between the federal and provincial governments is expected to increase. There is a need for coordination of strategic directions in S&T and partnerships in funding federal and provincial initiatives.

- Public acceptance and support for innovations

The public's understanding of how S&T can drive economic growth and improve quality of life is an important aspect of innovation-driven economies. There is a public desire to be educated about the scope and implications of innovations, provided with the opportunity to participate in discussions, and assured that public interest is protected.

***Implications for Science Council's Performance***

Strategic issues represent challenges that affect the organization's performance. These include:

- Core services review results and response to change

As part of the government review process, the Science Council has defined its core activities

and presented changes to realize its vision. Relevant information has been reflected in the Service Plan. However, it is recognized that when the core services review process is completed, the Science Council's mission and functions may change. There is a need for the organization to be prepared and flexible in responding to changes that may be made. Science Council staff, budget, board expertise, governance structure and other resources must be responsive to changes.

- Operational strategic challenges

Transitions resulting from the core services review; elimination of business subsidies; and a downsized Ministry of Competition, Science and Enterprise will present operational challenges. These include Science Council board member turnover, the board chair appointment, financial continuity and ministry linkages.

- Integration of S&T strategy and economic strategy

As demonstrated by several jurisdictions, successful transition to an innovation economy requires the development of an S&T strategy as a central component of the economic plan. With the government recognizing the importance of technology in economic growth, the challenge is to integrate an S&T strategy with the economic strategy.

- Strategic shifts to align with ministry's focus

The strategic shifts of the Ministry of Competition, Science and Enterprise require corresponding shifts in Science Council activities. Greater emphasis is anticipated in the rationalization and coordination of S&T activities, transfer of scientific knowledge, development of new initiatives, increased awareness of S&T and encouragement of a culture of innovation.

- Province-wide S&T mandate

The challenge in promoting S&T across BC is reconciling a province-wide mandate with the fact that the majority of business development incorporating S&T applications are in the Lower Mainland.

- Funding of S&T activities

There is a need to balance the Science Council's support of the province's increasing innovation initiatives with available funding. Therefore, increased effort is needed to identify external partners for funding. Reductions in funding for key programs also present a challenge because this may convey an impression externally of a decreased commitment to or value of technology-based growth in BC.

## 6. Goals, Strategies and Activities

*The Science Council has defined four strategic goals that will, alone and in combination, enable the Council to achieve its mission of promoting economic development across the province through innovative applications of S&T.*

The Science Council's four strategic goals are:

1. Encourage science- and technology-based innovation and development

2. Stimulate strategic job creation and skill development, and initiate labour market-related studies

3. Foster innovative R&D

4. Increase awareness of S&T opportunities.

The strategies to achieve these goals correspond to the core services and specific activities. The Science Council's three core services are:

1. Delivery of initiatives related to research and student support that involve research, facilitating technology transfer, and delivering scholarships and other skills development initiatives.

2. Analysis and assessment of science and S&T matters that involves facilitating, conducting, and synthesizing strategic analyses, assessments and reports on science and S&T matters, development of advice to government and coordinating and integrating R&D priorities, activities and investments.

3. Development of public and corporate awareness of scientific and technological opportunities that involves building support for science, research and innovation.

The specific activities under each strategy and goal are summarized in a matrix on the next page. The sections following discuss each goal in detail and present performance measures and targets for each activity.

## Goals, Strategies & Activities – Summary

| | S&T- based innovation development | Skill Development & Job Creation | Foster Innovative R&D | Awareness of S&T Opportunities |
|---|---|---|---|---|
| *Delivery of initiatives related to research & student support* | • Initiatives to assist and support technology transfer processes | • GREAT scholarships<br>• Science fair students career exploration | • Forest-related research<br>• S&T Infrastructure Program<br>• Knowledge Development Fund<br>• Collaborative Academic R&D | • Regional science fair activities<br>• Additional Initiatives to support science awareness |
| *Analysis & assessment of science and technology matters* | • Research, analysis and assessment of key issues on science, research, development and innovation economy<br>• Sector R&D coordination (aquaculture, forestry, marine and others) | • Research & analysis of key issues on skills development and job creation | • Research & analysis of key issues on innovative R&D<br>• Coordination of government R&D investments | • Research & analysis of key issues on awareness of S&T opportunities |
| *Development of awareness of S&T opportunities* | • R&D Hub initiative to attract international technology & investment to BC<br>• Initiatives recommended by volunteer experts to increase awareness of, & opportunities for international S&T business<br>• Encouragement and collaboration with others e.g. international events | • Initiatives to encourage increased participation in S&T education and careers<br>• Encouragement of S&T organizations to pursue supporting activities | • R&D Hub initiative, to attract international technology & investment to BC<br>• Science Council of BC Awards | • Promoting success stories<br>• Electronic publishing of reports and analyses<br>• Topical S&T and R&D "Synapse" Newsletter<br>• Web site<br>• Science Council of BC Awards<br>• Public events organized by the Science Council<br>• Volunteer and sponsor recruitment |

Descriptions of activities are included in Appendix I.

## Goal 1: Encourage science- and technology-based innovation and development

***The Science Council encourages science- and technology-based innovation and development by pursuing a sectoral approach. The Science Council undertakes activities that further sectoral development and create opportunities for sector participants. The Science Council will leverage its credibility and volunteer networks to advance initiatives that encourage science and technology-based innovation and development. The Science Council will facilitate investigations of new science-based opportunities in the innovation economy and improve collaboration and coordination across and between sectors. The Science Council will assist government on science and technology matters by providing useful, timely, relevant and influential S&T advice and recommendations based on sound analysis and assessment.***

The Science Council's activities will focus on key sectors where its involvement will have the greatest impact in improving coordination and collaboration among all stakeholders while examining key science, research and innovation development issues and opportunities.

The Science Council's sectoral activities will focus on the needs of small- and medium-sized technology businesses, and greater emphasis will be given to ensuring, facilitating and accelerating technology transfer from post secondary and other research centres. The Science Council will not duplicate activities delivered by other organizations, but will work broadly to assist and support technology transfer processes and to promote complementary initiatives.

Useful, timely, relevant and influential advice and recommendations based on sound analysis and assessment is critical for effective government decisions and policy setting on science-related matters. The Science Council will be a key resource organization to respond to requests for science-related advice from the government, to undertake analysis and provide recommendations on S&T issues that are deemed to be relevant for British Columbia, and to encourage discussions of S&T matters of public interest.

The Science Council will continually look for new opportunities, beyond traditional sources, to increase available resources for its work through leveraging of funds, partnerships and other revenue development initiatives.

The Science Council will be proactive in identifying opportunities to stimulate innovative activities and increase overall funding in key sectors, while promoting collaboration to accelerate the innovation process. Efforts will also be made to improve the rationalization and coordination of government priorities and investments in R&D.

*Activities, Performance Measures and Targets:* Specific activities, performance measures and targets for this goal are summarized in the following table.

## Goal 1: Encourage science- and technology-based innovation and development
## Activities, Measures & Targets

| | | | Targets | | |
|---|---|---|---|---|---|
| | *Activities* | *Measures* | *02/03* | *03/04* | *04/05* |
| *Delivery of initiatives related to research & student support* | Initiatives to assist and support technology transfer processes | Development and implementation of new initiatives based on new Science Council mandate | Establish baseline; set target | Meet target | Exceed previous target |
| *Analysis and assessment of science, research and technology matters* | Research, analysis and assessment of key issues on science, research, development and innovation economy | Number of projects undertaken | 4 | 4 | 4 |
| | | Instances of advice or recommendations provided to government | 4 | 4 | 4 |
| | | Number of studies published | 2 | 2 | 2 |
| | | Readers' ratings of report usefulness | 75% rate satisfactory or better | 80% rate satisfactory or better | >80% rate satisfactory or better |
| | Sector R&D coordination (aquaculture, forestry, marine & others) | External requests for the Science Council to undertake activities | 2 | 2 | 2 |
| | | Number of studies undertaken | 2 | 2 | 2 |
| *Development of awareness of S&T opportunities* | R&D Hub initiative to attract international technology and investment to BC | Total committed BC proponents | 25 | 30 | 35 |
| | Initiatives recommended by volunteer experts, to increase awareness of, & opportunities for international S&T business | Participants' and/or clients' rating, etc. as appropriate to each initiative | 75% rate satisfactory or better | 80% rate satisfactory or better | >80% rate satisfactory or better |
| | Encouragement and collaboration with others e.g. international events | Participants' rating/clients' rating | 75% rate satisfactory or better | 80% rate satisfactory or better | >80% rate satisfactory or better |

Descriptions of activities and measures are included in Appendix I.

## Goal 2: Stimulate strategic job creation and skill development

*Frequently working in collaboration with other organizations, the Science Council will take the initiative to identify critical issues; generate relevant information upon which advice, policies and initiatives can be developed; and, when appropriate, the Science Council may deliver and/or support projects and initiatives; and publicize the results (and implications) of initiatives. Emphasis will be on S&T education, career preparation, science literacy and improving the linkage between industry and academic institutions. The Science Council's work helps the private and public sectors understand issues related to science and technology and human resources, as they support the innovation economy.*

The Science Council is not in a direct position to create jobs or deliver education. However, the Science Council will play a leading role in helping the private and public sectors understand issues related to human resources and employment, as they support the innovation economy and development of knowledge workers.

The Science Council will work with the group of knowledgeable volunteers on its Human Resources Committee to identify and guide its activities in this area. Frequently working in collaboration with other organizations, the Science Council will take the initiative in identifying critical issues; generating relevant information upon which advice, policies, and initiatives can be developed; and, when appropriate, the Science Council will deliver and/or support projects and initiatives; and publicize the results (and implications) of initiatives.

Student support in the form of scholarships and other career-related initiatives will be made available. The Science Council will encourage greater private funding and sponsorship of student support and scholarship in science and technology areas. Science career awareness will be advanced through efforts that encourage increased student interest in the sciences, such as science fairs and through events that bring students into contact with science and technology businesses.

*Activities, Performance Measures and Targets:* Specific activities, performance measures and targets for this goal are summarized in the following table.

**Goal 2: Stimulate strategic job creation and skill development**
**Activities, Measures & Targets**

| | | | *Targets* | | |
|---|---|---|---|---|---|
| | *Activities* | *Measures* | *02/03* | *03/04* | *04/05* |
| *Delivery of initiatives related to research & student support* | GREAT scholarships | Number of GREAT students supported | 65 | 50 | 35 |
| | | GREAT scholarship funding | $1.3M | $1.0M | $0.70M |
| | | Leveraged support | 1:1 | 1:1 | 1:1 |
| | Science fair students career exploration | Students' rating of career day/ event | 80% rate valuable | 80% rate valuable | >80% rate valuable |
| | | Students' perceptions of S&T education and careers | 75% plan for S&T career | 75% plan for S&T career | 75% plan for S&T career |
| *Analysis and assessment of science, research and technology matters* | Research & analysis of key issues on S&T skills development and job creation | Number of published studies | 2 | 2 | 2 |
| | | Readers' usefulness rating | 75% rate report useful | 80% rate report useful | >80% rate report useful |
| *Development of awareness of S&T opportunities* | Initiatives to encourage increased participation in S&T education and careers | Participants' rating of events/Client's rating of initiatives | 75% rate satisfactory or better | 80% rate satisfactory or better | >80% rate satisfactory or better |
| | Encouragement of S&T organizations to pursue supporting activities | Number of instances of supporting activities | 2 | 2 | 2 |

Descriptions of activities and measures are included in Appendix I.

## Goal 3: Foster innovative research and development

*The Science Council will be proactive in identifying opportunities to stimulate and support innovative activities while promoting collaboration to accelerate the innovation process. Efforts will also be made to improve the rationalization and coordination of government priorities and investments in R&D.*

As an advocate for R&D, the Science Council will develop and implement support programs for research projects and infrastructure. R&D programs will be linked to technology transfer initiatives to ensure that knowledge from research is utilized.

Collaboration will be encouraged between the public and private sectors and post-secondary institutions in order to accelerate the generation and utilization of research results. Synergy in government's S&T activities and expenditures will be promoted through minimum duplication and more rational decision-making and resource allocation.

Efforts will be made to promote BC as a hub for R&D among international high-technology companies. Recognizing outstanding achievements will also encourage excellence in local research.

For R&D programs, Science Council follows a process of open merit-based and accountable decision making using peer review of funding applications. The Science Council's volunteer peer reviewers are drawn from around the province, and represent expertise in a wide variety of fields. In addition to the scientific rigor of the process, their participation in selecting applicants provides an important element of public accountability to the programs that the Science Council delivers.

The Science Council will continually look for new opportunities, beyond traditional sources, to increase available resources through leveraging of funds, partnerships and other revenue development initiatives.

*Activities, Performance Measures and Targets:* Specific activities, performance measures and targets for this goal are summarized in the following table.

## Goal 3: Foster innovative research and development
## Activities, Measures & Targets

| | | | Targets | | |
|---|---|---|---|---|---|
| | *Activities* | *Measures* | *02/03* | *03/04* | *04/05* |
| *Delivery of initiatives related to research & student support* | • Forest-related research<br>• S&T Infrastructure Program<br>• Knowledge Development Fund | Subscription of funding | 100% | 100% | 100% |
| | | Completed projects achieving technical objectives | 75% | 75% | 75% |
| | Collaborative Academic R&D | Development and implementation of new initiative(s) based on new Council mandate | Establish baseline: set target | Meet target | Meet target |
| *Analysis and assessment of science, research and technology matters* | Research & analysis of key issues on innovative R&D | Number of published studies | 2 | 2 | 2 |
| | | Readers' usefulness rating | 75% rate report useful | 80% rate report useful | >80% rate report useful |
| | Coordination of government R&D investments | Development and implementation of new initiative based on new Science Council mandate | Establish baseline: set target | Meet target | Meet target |
| *Development of awareness of S&T opportunities* | R&D Hub initiative to attract international technology and investment to BC | Total committed BC proponents | 25 | 30 | 35 |
| | Science Council of BC Awards | Number of nominations | Increase 5% | Increase 5% | Increase 5% |

Descriptions of activities and measures are included in Appendix I.

## Goal 4: Increase awareness of science and technology opportunities

*The Science Council will increase public and corporate awareness, understanding and support of science, research, technology and innovation, including the capabilities, challenges, and opportunities in British Columbia, through effective communications and the recognition of S&T achievement. Positioning the Science Council as a non-partisan facilitator and catalyst, the Science Council will initiate public discussion and education on important science-related issues.*

To maximize the effectiveness of available resources, awareness and promotion efforts will be targeted at a few well-defined groups that have the greatest impact on awareness of/support for science, research, technology, and innovation issues. These target audiences are opinion influencers in the business and academic communities, teachers, guidance counselors, and the technology and business media.

Limited resources also dictate that the Science Council undertakes two types of partnerships. The primary type will be strategic partnerships that reach key audiences, and that position the Science Council as a significant supporter. The second type will be assistance to other organizations promoting S&T opportunities (particularly to groups other than the core targets).

The Science Council intends to increase further its use of electronic distribution, publication and communications, building on its web presence.

*Activities, Performance Measures and Targets:* Specific activities, performance measures and targets for this goal are summarized in the following table.

**Goal 4: Increase awareness of science & technology opportunities**
**Activities, Measures & Targets**

| | | | *Targets* | | |
|---|---|---|---|---|---|
| | *Activities* | *Measures* | *02/03* | *03/04* | *04/05* |
| *Delivery of initiatives related to research & student support* | Regional Science Fair activities | Number of awards | 26 | 26 | 26 |
| | Additional Initiatives to support science awareness | Development and implementation of new initiative(s) based on new Council mandate | Establish baseline; set target | Meet target | Meet target |
| *Analysis and assessment of science, research and technology matters* | Research & analysis of key issues on awareness of S&T opportunities | Number of published studies | 1 | 1 | 1 |
| | | Readers' usefulness rating | 75% rate report useful | 75% rate report useful | 75% rate report useful |
| *Development of awareness of S&T opportunities* | Promoting success stories | Earned media | 20 stories | 25 stories | 25 stories |
| | Electronic publishing of reports and analyses | Number published | 4 | 4 | 4 |
| | Topical S&T and R&D "Synapse" Newsletters | Number of subscribers | 2,500 | 3,000 | >3,000 |
| | | Number published | 8 | 8 | 8 |
| | | Readers' rating | 75% rate useful | 80% rate useful | >80% rate useful |
| | Web site | Number of unique visitors per month | 2,200 | 2,500 | 2,800 |
| | Science Council of BC Awards | Cost recovery | 100% | 100% | 100% |
| | | Ticket sales | 100% | 100% | 100% |
| | Public events organized by the Science Council | Participants' rating of event | 75% rate satisfactory or better | 80% rate satisfactory or better | >80% rate satisfactory or better |
| | Volunteer and sponsor recruitment | Volunteers' and sponsors' ratings of their experience and/or involvement | 75% rate satisfactory or better | 80% rate satisfactory or better | >80% rate satisfactory or better |

Descriptions of activities and measures are included in Appendix I.

## 7. Financial Outlook

| Financial Outlook Summary for the 2002/03 – 2004/05 Service Plan ($'000) | | | | |
|---|---|---|---|---|
| **($'000)** | **2001/02 (Forecast)** | **2002/03 Budget** | **2003/04 Forecast** | **2004/05 Forecast** |
| **Total Revenue:** | | | | |
| Ministry: | | | | |
| Core | 2,090 | 4,650 | 4,010 | 3,430 |
| Technology BC Pgm. | 3,200 | 0 | 0 | 0 |
| Internal Sources | 796 | 0 | 0 | 0 |
| Other | 287 | 100 | 100 | 100 |
| Interest | 60 | 40 | 35 | 30 |
| Total | 6,433 | 4,790 | 4,145 | 3,560 |
| **Total Expenses:** | | | | |
| Scholarships (GREAT) | 1,000 | 1,300 | 1,000 | 700 |
| Technology BC Pgm. | 3,200 | 0 | 0 | 0 |
| Program Activity | 0 | 1,117 | 733 | 507 |
| Projects & Initiatives | 535 | 535 | 535 | 535 |
| Salaries and Benefits | 1,168 | 1,308 | 1,347 | 1,388 |
| Rent | 300 | 300 | 300 | 200 |
| Other Operating | 230 | 230 | 230 | 230 |
| Total | 6,433 | 4,790 | 4,145 | 3,560 |
| **Net Income (Loss)** | 0 | 0 | 0 | 0 |

**Critical Assumptions:**

Continued Core Funding Levels: The future year core budgets shown here are based on a 35% reduction in the $5.29 million ($2.09 base operating + $3.20 Technology BC) provided by the Ministry in the 2001/02 contract. The 35% reduction is spread approximately equally over the three years. In the 2001/02 fiscal year, the Science Council was able to fund part of its base operation from the last of its remaining reserves (reflected in the above table as "internal sources"). The Science Council's core funding in previous years has already been reduced 61% over the past five years and the Science Council has implemented a reduction plan over the past two years to restructure and reduce operations to match lower funding levels. The "program activity" line represents programs to be developed. The Ministry of Competition Science and Enterprise has also requested that a 50% budget reduction option be developed.

Not included: The revenues and expenditures shown in the above table reflect the Science Council's core operations only: activities funded directly by the province including the

GREAT Scholarship program. The table does not include several support programs delivered through the Science Council under specific contracts with funders where, aside from fees to cover administration costs, the funds flow through the Science Council to successful applicants (examples include: the IBM Scholarship Program (funded by IBM); the Science and Technology Infrastructure Program (funded by Discovery Parks)). In 2001/02 this included research programs delivered for Forest Renewal BC and Fisheries Renewal BC that are eliminated and the Technology BC Program funded under contract with the Ministry of Competition, Science and Enterprise that has been terminated as a subsidy to business. Further decisions stemming from the core services review and business subsidies review could affect future contracts. The costs associated with the delivery of programs under contract are provided for within the contracts so that there is no net impact on income.

**Forecast Risks and Sensitivities:**

While not directly affecting the net income in the financial outlook, as described above under "not included", opportunities for funded program delivery under contract may be further affected by the results of the core services review and business subsidies review. Some efficiencies of scale gained through the delivery of these funded programs could be lost.

# *Appendix I*

# Activity & Measure Descriptions

| Goal 1: Encourage S&T-based Innovation and Development Activities & Measures | | |
|---|---|---|
| *Strategy* | *Activities* | *Measures* |
| *Delivery of initiatives related to research & student support* | *Initiatives to assist and support technology transfer processes* will be developed based on the Science Council's mandate when the government's core services review is completed. | *Development and implementation of new initiative based on new Science Council mandate* indicates the number of new activities developed. |
| *Analysis and assessment of science, research and technology matters* | *Research, analysis and assessment of key issues on science, research, innovation and development* pertains to the Science Council facilitating or conducting studies that input into the government's policy discussion and development. | *Number of projects undertaken* reflects the level of activity and issues considered to support evidence-based decision-making. |
| | | *Instances of advice or recommendations provided to government* reflects the level and effectiveness of the activity |
| | | *Number of studies published* reflects the level of activity and range of subjects considered to develop effective advice. |
| | | *Readers' ratings of report usefulness* reflects the utility of the work in increasing knowledge and awareness of key issues |
| | *Sector R&D assessment involves* assisting various stakeholder groups in establishing shared vision and priorities for R&D activities in their sector and formulating an investment plan. An example is the current aquaculture R&D initiative. | *External requests for the Science Council to undertake activities* reflect initiatives by Science Council staff to respond to a perceived need or a direct request for assistance from a sector. |
| | | *Number of studies undertaken* reflects the level of activity and issues considered to support evidence-based decision making |
| *Development of awareness of S&T opportunities* | *Research and Development Hub Initiative* is a volunteer initiated activity (senior private sector executives), to promote BC's research sector. Senior BC executives promote the concept to Asia contacts during business interactions. | *Total committed BC proponents* pertains to senior business executives promoting the benefits of BC's R&D capabilities with their counterparts in Asia and/or supporting local promotional efforts with international business leads generated. |
| | *Initiatives recommended by volunteer experts to increase awareness of, and opportunities for international S&T business* include a variety of activities intended to open foreign markets for BC S&T businesses, and attract foreign S&T investment to BC. Examples include recent MOUs signed with China, Philippines and Punjab. | *Participants' and/or clients' rating, etc. as appropriate to each initiative* measure the effectiveness of each initiative for target audiences. The level of follow-up assessment will match the effort and resources committed. |
| | *Encouragement and collaboration with others on international events* where the Science Council acts as a liaison and coordinator between other S&T organizations. The Science Council also uses some of its resources to support specific events by these organizations. | *Participants' and/or clients' rating* will be used, where appropriate, to assess participants' / clients' satisfaction with events or initiatives co-sponsored by the Science Council. |

| Goal 2: Stimulate Job Creation Activities & Measures | | |
|---|---|---|
| *Strategy* | *Activities* | *Measures* |
| *Delivery of initiatives related to research & student support* | *GREAT scholarships* are administered by the Science Council.<br>GREAT (Graduate Research, Engineering and Technology) offers up to $20,000 to graduate students conducting research in collaboration with a BC company. | *Numbers of GREAT students supported* and *GREAT scholarship funding* measure the assistance given to students to support skill development. |
| | | *Leverage support* measures contributions (cash and in-kind support) from companies participating in the GREAT scholarship program |
| | *Science fair students' career exploration* is an annual event that coincides with the awards dinner. In collaboration with Science Fair Foundation, BC students who participated in the national science fair competition are brought to Vancouver for an opportunity to meet with career role models from the business and academic communities. | *Students' rating of science career day/event* measures the value of the event. |
| | | *Students' perceptions of S&T careers* assesses the event's effectiveness in demonstrating the variety of career options in S&T and the students' interest in pursuing this path. |
| *Analysis and assessment of science, research and technology matters* | *Research and analysis of key issues on skills development and job creation* involves the Science Council facilitating or conducting studies that input into policy discussion and development. | *Number of published studies* measures analyses and reports to support evidence-based decision-making. |
| | | *Readers' usefulness rating* measures the utility of reports/studies. |
| *Development of awareness of S&T opportunities* | *Initiatives to encourage increased participation in S&T education and careers* support the province's overall goal of moving to an innovation economy. Initiatives typically take the form of events and forums sponsored or supported by the Science Council. | *Participants' rating of event/clients' rating of initiatives* measures success of sponsored events or satisfaction of target clients. |
| | *Encouragement of S&T organizations to pursue supporting activities* involves contributing staff expertise and limited funds as an effective method for focusing resources and priorities. | *Number of instances of supporting activities* reflects the level and effectiveness of the activity. |

| Goal 3: Foster Innovative R&D Activities and Measures | | |
|---|---|---|
| *Strategy* | *Activities* | *Measures* |
| *Delivery of initiatives related to research & student support* | *Forest-related Research.* The Science Council has administered forest-related research programs for several years. The implementation of the Forest Investment Account creates an opportunity for the Council's administration of forest related research activity to continue. | *Subscription of funding* measures the percentage of program funds that have been committed to projects. This is an indicator of the match between program funding and the need for the initiative.<br><br>*Completed projects achieving technical objectives* measures the success rates for projects funded. This is usually determined by reports and responses from recipients.<br><br>Note: Subsidiary indicators are also used depending on the specifics of the initiatives and can include success rates for applications, leveraged funding, etc. Funders of programs delivered under contract by the Science Council may also set specific performance measures related to the delivery and administration of the initiative. |
| | *Science & Technology Infrastructure Program* (STIP) was established by the Science Council, with support provided by Discovery Parks Inc. to assist applicants to develop successful proposals that attract extra-provincial R&D funding to BC (initial targets were federal government CFI funds). | |
| | *Knowledge Development Fund* (KDF) provides provincial matching funds for the federal Canada Foundation for Innovation program. The Science Council provides administrative and logistical support for application review. | |
| | *Collaborative Academic R&D* will be developed and implemented based on Science Council's new mandate. | *Development and implementation of new initiative based on new Science Council mandate* – initiative will start; and the baseline and future targets will be set. |
| *Analysis and assessment of science, research and technology matters* | *Research and analysis of key issues on innovative R&D involves* the Science Council facilitating or conducting studies that input into policy discussion and development. | *Number of published studies* measures analyses and reports to support evidence-based decision-making. |
| | | *Readers' usefulness rating* measures the utility of reports/studies. |
| | *Coordinated government R&D investments* will be facilitated and mechanisms designed based on Science Council's new mandate. | *Development and implementation of new initiative based on new Science Council mandate* – initiative will start; and the baseline and future targets will be set. |
| *Development of awareness of S&T opportunities* Awareness | *Research and Development Hub Initiative* is a volunteer initiated activity (senior private sector executives), to promote BC's research sector. Senior BC executives promote the concept to Asia contacts during business interactions. | *Total committed BC proponents* pertains to senior executives from BC businesses promoting the benefits of BC's R&D capabilities with their counterparts in Asia and/or supporting local promotional efforts with international business leads generated. |
| | *Science Council of BC Awards* is the premier event recognizing excellence in the province's S&T communities. Six awards are given every year, with winners drawn from nominations from around the province. | *Number of nominations* reflects overall awareness of and appreciation for the role of S&T in the province and reflects the prestige and significance of recognition at the Science Council event. |

| Goal 4 – Increase Science & Technology Awareness Activities and Measures | | |
|---|---|---|
| *Strategy* | *Activities* | *Measures* |
| *Delivery of initiatives related to research & student support* | *Regional Science Fair activities* - Regional science fair prizes are sponsored annually in 13 regions by the Science Council through the BC Science Fair Foundation. | *Number of awards* given each year reflects efforts to promote science and science careers to students. |
| | *Additional initiatives to support science awareness* involve activities designed to encourage students to pursue science. | *Development and implementation of new initiative based on new Council mandate* - initiative will start; baseline and future targets will be set. |
| *Analysis and assessment of science, research and technology matters* | *Research and analysis of key issues on awareness of S&T opportunities* involves studies that further awareness and stimulate public and corporate interest in key S&T issues and public policy matters. | *Number of published reports* reflects the level of activity and range of issues considered to better undertake public and corporate awareness of science and technology issues. |
| | | *Readers' ratings of report usefulness* reflect the utility of the work in increasing knowledge and awareness of key issues. |
| *Development of awareness of S&T opportunities* | *Promoting success stories* related to companies or individuals who benefited from Science Council programs and activities. | *Earned media* indicates frequency of media coverage that refers to the Science Council within the context of a story (i.e. news or feature). |
| | *Topical S&T and R&D "Synapse" Newsletters* - Electronic publishing will receive higher priority, to respond more specifically to the unique needs and interests of different Science Council client groups and target audiences. | *Number of subscribers* for electronic publications reflects interest/support of readers. |
| | | *Number published* indicates the level of activity |
| | | *Readers' rating* measures the usefulness of the electronic newsletters as an information source. |
| | *Web site* activities will become increasingly important with the shift to electronic publishing, and BC's overall "digital divide" thrust to promote connectivity throughout the province. | *Number of unique visitors per month* reflects interest in and awareness of Science Council's Web site. |
| | *Science Council of BC Awards* and sponsorship – The Science Council of BC Annual Awards is the premier event recognizing excellence in the province's S&T communities. Six awards are given every year, with winners selected by a review committee. Nominations are encouraged from all parts of the province. | *Cost recovery* reflects the level of event sponsorships balanced by the control of costs. |
| | | *Ticket sales* reflect the level of interest and support for the event. |
| | | *Number of nominations* reflects overall awareness of and appreciation for the role of S&T in the province and reflects the prestige and significance of recognition at the Science Council event. |
| | *Public events organized by Science Council* encompass a variety of possible unique and ongoing initiatives, designed to foster some aspect of public awareness around S&T (e.g. genomics). | *Participants' rating* indicates success of the event. |
| | *Volunteer and sponsors recruitment* - Volunteer support is important for the success and quality of initiatives undertaken by the Science Council. The volunteers, who sit on the various committees, contribute valuable expertise from across BC. | *Volunteers'/sponsors' rating of their experience or involvement* reflects effectiveness in involving S&T community support for Science Council activities. |